Clinical Department

FILARIASIS

By

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We have thought it worth while to report this case because of (1) its apparent rarity in this vicinity; (2) the sudden onset of symptoms after many years' residence in California; (3) the unusual urological findings (chyluria from the pelves of both kidneys with chylous hydrocele); and (4) the possibility (though remote) of the establishment of an endemic focus of this mosquito-borne disease within the borders of California, such a focus having already been described within the borders of the Continental United States [1].

Case History—

T. O. Japanese, farmer, age 42, married.

F. H. Wife and 4 children, living and well.

P. H. Had severe pain in left hip when nine years old bed 3 months; complete recovery. Upon arrival U. S. A. in 1906 had beri-beri; no recurrence. Some chronic cough last few years.

P. I. Began Dec. 31, 1920—Dull burning discomfort in epigastrium, not associated with meals, increased by working. Two days later milky urine, swelling of right testicle.

P. E. Head—Not remarkable, except for many infected teeth.

Chest—Slight dullness, both apices; few rales left base.

Radiogram—Shows moderate fibrosis to both apices and left base.

Circulatory System—Not remarkable.

Abdomen—Pain located by patient beneath left rectus, just below costal margin. There is some deep rigidity and tenderness here.

Neuro-muscular, Bones-Joints, Skin } Not remarkable.

Urological Examination — Ext. Genit.—No enlargement of inguinal nodes, no herniae. Penis—Normal, no scars, no discharge at meatus. Scrotum—Enlarged, globular mass on right, about size and shape of a pear, translucent; does not change with position or coughing. Vas—Palpable above the pear-shaped tumor. There is an increased density in the inferior and posterior portion of the tumor mass, which is no doubt testicle. Needle introduced into the pear-shaped tumor mass, withdraws milky fluid, neutral in reaction and fat-containing. Right testicle, vas, and epididymis, normal.

Urinary Examination—In all three glasses the urine had a milky appearance, specific gravity 1021, neutral reaction, and contained considerable albumin, no sugar, no W. B. C. The stained specimen was negative for bacteria.

Rectal Examination—Few external hemorrhoids. Anal sphincter of good tone. Prostate, normal. Prostatic secretion contained no pus, 70 per cent. lecithin, no R. B. C., no spermatozoa. Seminal vesicles not palpable.

Cystoscopic Examination—Bladder capacity normal; no residual urine. Mucous membrane of the bladder was normal, as were the trigone and ureteral orifices. Catheters were inserted and specimens obtained. Ureteral specimens were collected, the two sides being practically identical and contained microscopically a few R. B. C., few oxalate crystals, epithelial cells, fat globules and no organisms. Cultures did not show growth.

Intravenous Phthalein—22 cc. obtained from the right; appearance time, 2 minutes; 36% phthalein. From the left 16½ cc.; appearance time, 3 minutes; 30% phthalein, making a total of 66% in one-half hour's time.

Intramuscular Phthalein—Given a day or two previously, showed 150 cc. and 70% the first hour, 300 cc. and 10% the second hour. Total, 450 cc. and 80%.

X-ray Examination—Normal outline of kidneys. Iodide solution, 8 cc. injected into the right kidney pelvis, 12 cc. into the left kidney pelvis. Both normal. Right shows 3 major, 8 minor calyces, no blunting or abnormalities of position. Left, 2 major, 7 minor calyces, no blunting or abnormalities as to position.

Laboratory Report — Blood—W. B. C. 8,800. R. B. C., 5,010,000. Hb., 92%. Differential, Polys 75. Small lymphas, 19. Large lymphos, 4. Eosinophile, 1. Transitional, 1. No malaria. Blood Wassermann, negative.

It required the examination of many thick smears made after the method described by Francis [1] and examined both fresh, and after staining with Wrights' stain, before a half dozen larvae were finally located during an intermission of symptoms.

We were unable to find any larvae in the hydrocele fluid, and this is also unusual.

The fat droplets in the urine were extremely small, resembling cocci in size. Ether extraction with later evaporation brought to light convincingly large fat globules.

Treatment—Bed-rest for 24 hours relieved all symptoms, pain, anorexia, and chyluria. They promptly recurred when the patient resumed the upright position.

It would appear that the thoracic duct occlusion is partial in the horizontal, but more or less complete in the vertical position.

Capital National Bank Building.

1 Edward Francis, U. S. P. H. S. Report 1919.

CASE HISTORIES FROM THE CHILDREN'S DEPARTMENT, UNIVERSITY OF CALIFORNIA MEDICAL SCHOOL AND HOSPITALS

1921 Series, Case No. 4, 1914. Male, Italian. Age, 15 months. F. P. No. 8058.

Complaint: He came to the hospital because of bronchitis and lack of development. He was admitted to the hospital first in July and then again in October.

Family History: Father and mother normal Italians. There were 2 brothers and 3 sisters living and well; one brother died at age of 10 months, cause unknown. F. P. was 7 months premature.

Past History: Never been breast-fed and had been fed on many proprietary foods. Before he entered the hospital he was receiving three-fourths whole milk, one-fourth boiled water with a teaspoon of granulated sugar to each bottle. He was receiving 6 ounces of this food whenever he appeared hungry. Bowels had been regular. On entrance he was markedly undernourished. At 14 months he had suffered from a severe attack of measles, following which he had a cough and a purulent discharge from the left ear, and he had had some aphonia.

Physical Examination: Showed a pale, fairly well developed, poorly nourished child with the usual signs of rickets, square head and enlarged epiphyses and rosary. Musculature was flabby. Lungs showed very shallow breathing with some dullness in the upper lobes of both lungs. Breath sounds were clear throughout and there were moist medium coarse rales throughout both front and back. Heart was normal area, and there were no murmurs. Abdomen was large, liver and spleen were not enlarged. Reflexes were normal. He had several furunculi on the sacral region. Von Pirquet reaction was negative as was the blood Wassermann. His blood picture, for which condition we are reporting this case, showed a very low hemoglobin with a high red count and moderate leucocytosis. The blood counts are as follows:

Date Hb. % (Dare)	Red Cells	White Cells	Neutro philes	Eosin.	Baso-philes	Lymph.	L. Monos. & Transit.	Abnormal Forms
First Entry:								Aniso. Poik.
Aug. 15 38	5,272,000	27,700	54.8	.4	.4	34	10.4	Pallor
Aug. 26 32	5,208,000	19,300	56.5	1.	1.	37.5	4.	Aniso. Poik.
Second Entry:								Aniso. Poik.
Oct. 11 35	4,448,000	19,450	31	4.5	2.5	54.	8.0	.7 Myelo-
Oct. 18 32	7,832,000	19,550	35	6.5	2.	47.	9.5	cytes
Nov. 4 45	5,760,000	11,800	30	0	1.	49.	19.	3 Myelo-
Nov. 18 50	5,952,000	13,000	29	0	0	42.	25.	cytes
Nov. 21 70	7,040,000	9,300	50	0	1	9.	41	0
Dec. 23 65	6,336,000	15,800	26	.9	0	30.	43	0
Jan. 5 63	5,488,000	12,960	29	1	0	45.	25	0

Discussion: This blood picture is rather unusual on account of the high red cell count and low hemoglobin. The differential count was practically normal except for the occasional presence of myelocytes; the moderate change in the size and shape of the red cells and the marked lack of hemoglobin were most interesting. There was marked anisocytosis and poikilocytosis and occasional stipling.

During the past few years a number of cases in infants and young children with this type of blood which resembles closely the blood of chlorosis, found in young adolescent girls, have been reported. Bunge and Abderhalden have shown that a diet containing too little iron can produce in young animals a condition very similar to that of chlorosis. In French literature one finds frequent descriptions of chlorosis in infants. Nonat (Traite de la Chlorose, Paris, 1864) as early as 1864 reported a series of 68 cases with this type of chlorosis. Halle and Jolly (Arch. de Med. des Enfants, 1903) described the blood picture of chlorosis in infants, and Schwarz and Rosenthal (Arch. Ped., 37:1) have collected a series of 40 cases, 29 of which occurred under the first year. This type of anemia shows nothing characteristic in the appearance of the child beyond a marked anemia and diagnosis of the type is not made unless the blood is carefully studied. It is interesting to note that this type of anemia occurs more often in children who were premature or are delicate. It also occurs in twins and those who have had a rather stormy history during the first three months of life. It may occur in the breast-fed as well as in the bottle-fed. It is not limited to girls as is the chlorosis of adolescence, as more cases have been reported as occurring in boys than girls during infancy. The family history often brings out the fact that chlorosis has existed in the family before or that some other type of anemia has been present in other members of the family.

There is usually a loss of appetite, and intestinal derangement associated with this type of anemia during infancy. The mucous membranes are usually pale but not excessively white. Some of the authors speak of a greenish color though this even in the chlorosis of adolescence is not common, at least in the chlorosis that is seen nowadays. The blood examination shows a color index between 0.4 and 0.6; the red blood cells vary between 4,000,000 and 6,000,000; white blood cells may be normal in number, slightly reduced or slightly increased. The platelet count is normal ranging between 200,000 and 300,000. The blood volume is usually normal. Schwarz and Rosenthal estimated that there was a negative balance of iron but a positive balance of nitrogen. Just how much the iron balance has to do with hemoglobin is not known. It is supposed that the premature and weakling has an insufficient amount of iron deposited during foetal life as a greater proportion of the deposit of iron occurs during the last three months of pregnancy. These infants bring into the world a diminished quantity of iron. In older cases intestinal conditions or dietary errors may be a factor in the production of this type of anemia though it would appear that some other factor in addition to diet must be found to account for these cases.

Treatment: This child responded very rapidly to injections of iron citrate. He received bi-weekly injections of 1 c. c. of the citrate of iron. The dietary treatment is of equal importance as that of the administration of iron. Diet should contain liberal amounts of meat juices for young infants and scraped meat for older infants. If freshly-cooked liver can be given, this adds a very definite stimulus to the red blood-forming tissues, combined with spinach, which also stimulates the formation of red blood tissue, which combination has been found most advantageous in the treatment of these secondary anemias. It usually takes from 3 weeks to 3 months before a normal blood picture is re-established, though as has been pointed out in the other cases of anemia reported, the length of time which it takes to recover from a secondary anemia depends somewhat on how long the anemia has continued. The longer a secondary anemia has persisted the slower usually will be the recovery to normal and in some cases the level of regeneration of the blood-forming organs may be very slow in returning to a normal level. In these cases a subnormal level has apparently been struck, over which it is very difficult to bring the blood.

ACUTE PERFORATION OF DUODENAL ULCER*
With Report of Eight Cases

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This paper comprises a report of acute perforations of duodenal ulcer operated on by me in the past nine years at the Mercy Hospital, Bakersfield.

Acute perforation of duodenal or gastric ulcer is the most serious upper abdominal catastrophe we are called on to treat. The onset is always sudden, the course rapid, and unless a timely operation is done there is a fatal ending in about 90 per cent., according to Deaver. This is probably somewhat high as we often see cases coming to operation later in which the perforation has been closed off by massive adhesions. A careful anamnesis will nearly always bring out the fact that the patient has had previous gastric symptoms, pain coming on three or four hours after eating, relieved by eating, vomiting or alkalis.

The first symptom of perforation is sudden acute, agonizing unendurable pain. Patient lies absolutely still, refusing to be moved in any position. There may or may not be vomiting. Almost immediately after the perforation the abdominal muscles become intensely rigid and, as Deaver states, there is no condition in the upper abdomen where rigidity is so early and marked as in perforated ulcer. This rigidity usually is most marked in the right upper quadrant where also

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